

WHAT IS CLAIMED IS:

1. A semiconductor device comprising:

a semiconductor chip having a main surface of a rectangular shape, said semiconductor chip including an integrated circuit and external terminals formed in said main surface, said main surface having a pair of longer edges and a pair of shorter edges, said pair of longer edges extending in a first direction, said pair of shorter edges extending in a second direction which is different from said first direction;

a plurality of signal leads each having an inner lead and an outer lead which is continuous with said inner lead, said inner lead having a first portion and a second portion, each of said first portions being disposed over said main surface of said semiconductor chip and being spaced from one another in said first direction, each of said second portions crossing one of said pair of longer edges and extending out beyond said semiconductor chip;

bonding wires for electrically connecting said external terminals of said semiconductor chip with said first portions of said inner leads; and

a resin member of a rectangular shape, said resin member having a pair of longer sides and a pair of shorter sides, said pair of longer sides of said resin member extending in said first direction, said pair of shorter sides of said resin member extending in said second direction, one of said pair of longer sides of said resin member being arranged at a vicinity of said one of said pair of longer edges of said semiconductor chip, said resin member sealing said semiconductor chip, said bonding wires, and said inner leads of said plurality of signal leads,

wherein all of said outer leads of said plurality of signal leads protrude outwardly from said one of said pair of longer sides of said resin member.

2. A semiconductor device according to claim 1, wherein said external terminals are spaced from each other at a predetermined distance in said first direction.

3. A semiconductor device according to claim 2, wherein said external terminals are arranged at a central area between said pair of longer edges of said semiconductor chip.

4. A semiconductor device according to claim 1, wherein said semiconductor device has a Zigzag-in-line package.

5. A semiconductor device according to claim 3, wherein said outer leads of said plurality of signal leads protrude outwardly from only said one of said pair of longer sides of said resin member.

6. A semiconductor device according to claim 1, further comprising a power supply lead having an inner lead and an outer lead which is continuous with said inner lead, said inner lead of said power supply lead having a first portion and a second portion, said first portion of said inner lead of said power supply lead being disposed over said main surface of said semiconductor chip and being extended in said first direction, said second portion of said inner lead of said power supply lead

extending from said first portion of said power supply lead to the outside of said semiconductor chip,

wherein said outer lead of said power supply lead protrudes outwardly from said one of said pair of longer sides of said resin member.